

APPARATUS, METHOD, AND SYSTEM FOR DRAFTING MULTI-  
DIMENSIONAL DRAWINGS

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ABSTRACT OF THE DISCLOSURE

According to one embodiment of the invention, a method for interfacing with a surface within a computer-aided drawing environment includes determining that a plurality of curves operable to define the surface constitute a  $P \times 1$  surface condition. A  $P \times 1$  surface condition is defined by a number of first curves equal to  $P$  and only one second curve.  $P$  is an integer greater than zero. The method also includes converting the  $P \times 1$  surface condition into an  $N \times M$  surface condition in response to determining that a plurality of curves constitute a  $P \times 1$  surface condition. An  $N \times M$  surface condition is defined by a number of third curves equal to  $N$  and a number of fourth curves equal to  $M$ .  $N$  and  $M$  are integers greater than one. The method also includes constructing an  $N \times M$  surface under the  $N \times M$  surface condition. The method also includes modifying the  $N \times M$  surface to edit a drawing.